

What Is Claimed Is:

1. A method for producing etched holes and/or etched trenches (11) on components based on silicon or a layered silicon/insulator structure, wherein a germanium-containing layer and/or a germanium layer (9) is provided at the point at which or in whose surroundings an etching procedure is to be completed, germanium and/or germanium compounds is/are detected during the etching procedure, and the etching procedure is controlled, in particular interrupted, as a function of the detection of germanium and/or germanium compounds.
2. The method as recited in Claim 1, wherein the germanium and/or germanium-containing layer is buried in a layered structure.
3. The method as recited in one of the preceding claims, wherein the germanium and/or germanium-containing layer (11) is applied to the back of a silicon wafer (1).
4. The method as recited in one of the preceding claims, wherein the germanium and/or germanium-containing layer (11) is removed after completion of a etching procedure up to the germanium and/or germanium-containing layer.
5. The method as recited in one of the preceding claims, wherein the germanium and/or germanium-containing layer is simultaneously used as a component functional layer.
6. The method as recited in one of the preceding claims, wherein germanium and/or germanium compounds are detected using optical emission spectroscopy or mass spectroscopy.
7. A diaphragm sensor unit having a substrate made of silicon or a layered silicon/insulator structure, which comprises a flat diaphragm for implementing a sensor element structure for a sensor,

wherein a germanium and/or germanium-containing layer is provided in the layered structure.

8. The diaphragm sensor unit as recited in Claim 7,  
wherein the flat diaphragm contains germanium or is made entirely of germanium.